iPads: A fixture in American classrooms?

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Society today is extremely dependent upon technology in all aspects of life, including education.  In the mathematics discipline there are several applications of technology; the most common and often controversial to this point has been that of the hand-held calculator. However, recent technological advances have introduced a new device into American classrooms; a device that far surpasses the capabilities of the once advanced, graphing calculator.

“Computers have changed our world, both inside and outside the classroom. It is not just the computer itself, with all of the capabilities that has caused this change. Indeed the computer has proven itself to be just the frontrunner of a much greater digital revolution. As a result of the advances in personal computers, many other digital devices have evolved. These devices can serve teaching and learning in dramatic and innovative ways,” (Lever-Duffy, McDonald & Mizell, 2003).

One such digital device that is quickly becoming a fixture in American classrooms is the Apple iPad.

A study conducted in January of 2012 revealed that, “by Apple's count, 1.5 million iPads are being used by schools” (Kessler, 2012). This number has only increased, in August of the same year, “It [Apple] also announced that it had sold 1 million iPads to [high schools](http://www.usnews.com/education/best-high-schools) and [colleges](http://colleges.usnews.rankingsandreviews.com/best-colleges), doubling its iPad sales to schools during the same quarter a year ago” (Lytle, 2012). This number was more than double the amount of MacBook laptops sold to schools during the same time frame. (Lytle, 2012). "Education tends to be a conservative institution, but we're not seeing that at all on the iPad,’ Apple CEO Tim Cook said on a call with investors. ‘The adoption of the iPad in education is something I've never seen in any technology" (Lytle, 2012). For years the American education system has been hesitant to impart any radical change. However, “the wave of new technology affecting every aspect of our society simply cannot be ignored.” (Means, 2000). Despite its growing popularity and the introduction of such technology into our schools, some individuals may be led to question its place as a fixture in American Classrooms.

Introducing any new form of technology into a school takes a significant commitment both in the time required to create the necessary activities and lessons as well as financially. Purchasing devices and insurance policies on iPads requires a significant amount of funding. With the base cost beginning around $399 per unit, the cost for purchasing all students an iPad adds up quickly. Not to mention the cost for all required application and textbook downloads. Along with the upfront cost of the device itself, in order to affectively incorporate them into a classroom teachers must be trained on proper use along with having access to professional development opportunities to learn new practices. The overall cost of incorporating such devices is largely believed to be the greatest downside to the device.

However, despite cost being the primary negative aspect of incorporating iPads, there are other qualities of the device that pose problems to implementation. Overall wireless infrastructure is a large consideration when a school contemplates introducing iPads. Bandwidth needs to be such that it supports multiple devices being used simultaneously; in some rural areas it is difficult to enhance your infrastructure to a point where it can support this kind of use. Establishing accounts for students and acceptable use policies also have to be a consideration. Students should have expectations and rules which highlight what activities and games are appropriate for classroom use. Another challenge is working with the operating system; it works different from the operating systems that most of us are familiar with and poses problems with memory, cloud-space and the backing up of data. “While laptops give you the luxury of flash drives or desktop file folders, these are not an option with Apple's mobile operating system” (Magiera, 2012).

In a short time, despite the challenges and cost, the Apple iPad has impacted not only the way that students learn, but also the way that teachers approach their lessons and lesson planning, as well as enhancing their own personal learning,” I’ve never observed anything else that has had the impact on teacher personal learning like the introduction of the iPad,” (Sitkins, 2012). One of the big contributors to this change is the ease of communication and the sharing of data across not only curriculums, but classrooms worldwide. Teachers are learning to access programs and apps that they previously didn’t have access to, as well as opening lines of communication to other subject/content areas.

One high school principal, in a blog about the introduction of iPads wrote, “I’ve observed the collective knowledge base of our teachers grow at a rate that far exceeds any other period of time in my 13-years at this school.” (Sitkins, 2012).

In addition to gaining access to a wealth of new programs and knowledge, teachers are also able to access new and innovative ways to engage student interest and enhance learning. Today’s students are growing up in an age of technology. Whereas most adults today didn’t have a home computer until their teenage years, today’s students are walking around with a computer in their pocket in the form of a digital Smartphone. They access information in a way that is drastically different from the way that we, as adults and teachers once did. It is important that the educational world understand that the needs of these learners differ from the needs of students even as recent as five years ago. The evidence is there to suggest that teaching with iPads is more engaging and meaningful to these digital learners. By using technology and tools such as the iPad, the teacher can facilitate learning that allows the students to utilize their skills. “I see teachers learning more each day about what it means to become a facilitator of student learning. I see teachers who understand that students have access to unlimited numbers and types of educational resources and teachers that allow students to take more control of their learning” (Sitkins, 2012).

Students today have been amerced in a digital world for their entire life. “Because brains are neurologically different, our classrooms must be different” (McCully). These students have been raised in a way such that the traditional classroom is not meeting their academic needs. “Due to digital bombardment, most learners are visual or kinesthetic learners rather than the auditory learners more familiar to teachers” (McCully). Teachers who are not adapting to the needs of their students are doing a disservice to future generations. Information on learning styles, as well as strategies to help present information in ways such that students of all learning styles and intelligences have access to learning has become more readily available to teachers. Students are also becoming increasingly more aware of how they learn and have begun challenging the traditional classroom to incorporate more modern techniques as well.

Whereas learners of the past were content with lecture and drill, today’s students “expect to be engaged participants, not just recipients of passive presentations,” (Lever-Duffy, McDonald & Mizell, 2003). The importance of creating authentic assessments and practical lessons that students can relate to daily lives has become increasingly more popular. “Education reforms have stressed the importance of (1) Involving students in challenging, authentic tasks performed with tools comparable to those of professional practitioners and (2) leveraging the intellectual and social resources available through collaboration” (Means, 2000). The use of iPads not only assists with the creation of authentic tasks, but also enhances communication. Technology provides students with the opportunity to collaborate with not only classmates, but with any member of the global community. Through applications such as Skype students can connect with peers in other classrooms around the world. They can learn the skills necessary to complete projects where their collaborators are not physically present in the same space. These are skills that are becoming more important to individuals seeking careers in business, architecture etc. Students are charged with applying their knowledge and creating something much the same as they will be asked to do in future careers.

When students are given the opportunity to CREATE written work on an iPad this subject is transformed. I have enjoyed the opportunity to observe students who were formerly reluctant writers flourish when given the opportunity to work in apps like Book Creator. Because students have the opportunity to create beautiful works of art they see the value in sharing their written work with others. Suddenly, students understand that they are writing for an audience and consequently are self motivated to create a quality product. I’m observing classrooms that don’t have to convince students to write and instead have greater numbers of students that choose to write in their free time than ever before. (Sitkins, 2012).

Suddenly, what was once “work” becomes a fun and engaging project where students have the freedom and tools to create and express their knowledge through varied means.

Despite the challenges and cost of incorporating such devices, the iPad is truly proving to have staying power in American classrooms. Apple has embraced the potential of their device to enhance classrooms and learning. “Right now at the App Store, there are more than 20,000 educational apps for all kinds of learners, teaching them everything from science to sign language. Students can track their assignments, take notes, and study for finals. Teachers can give lessons, monitor progress, and stay organized. And that’s just the beginning.” ("Apple in education"). As a teacher who is working in a district that is working to incorporate iPads I look forward to experiencing all that the iPad has to offer.

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